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EXAMINER

WANG, JIN CHENG

ART UNIT PAPER NUMBER

2672

DATE MAILED: 01/05/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/631,413

Applicant(s)

BERTHAUD, CHRISTOPHE

Examiner

Jin-Cheng Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

Response to Amendment

The amendment C filed on 09/29/2003 has been entered. Claim 1 has been amended.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teres et al U.S. Patent No. 6,184,871 in view of Olsen et al. U.S. Patent No. 6,137,479, and further in view of Ferrari et al U.S. Patent No. 6,392,636.

3. Claim 1:

(1) Teres teaches a watch including display means for at least one item of time related data and having an at least partially transparent outer element covering said display means or forming an outer portion of the display means, said watch

including first control means being formed of a plurality of touch sensitive sensors with each touch sensitive sensor having a touch sensitive pad being at least partially transparent and the touch sensitive pads are supported at least partially by said outer element such that the

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display means is at least partially visible through the touch sensitive pads and the outer element (See Teres figures 1-5; column 2-5).

(2) Teres lacks a full disclosure of "a first control means for controlling the movement of cursor on a computer screen."

(3) The Olsen reference has taught a mouse watch 54 including display means for at least one item of time related data and having an at least partially transparent outer element covering the display means (figures 4-7, column 5, lines 65-67, column 6, lines 1-67, and column 7, lines 1-25). The Olsen reference has taught a mouse watch including control means for controlling the movement of cursor on a computer screen and touch sensitive sensors are built into the mouse watch to provide the computer mouse functions, i.e., the mouse watch can be used to detect the cursor movement on the display screen 26 (see for example, column 5, lines 42-67, and column 6, lines 1-67, column 7, lines 1-25).

(4) It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have incorporated the first control means of Olsen into Teres's watch device for the control of a cursor on a display screen in accordance to the fingertip's movement because Teres suggests providing a watch device formed by a matrix of photoelectrical sensors arranged on the bottom surface of the glass for identifying a manual action by a finger on the surface of the watch device to create a variation of an electrical quantity (e.g., Teres the Abstract) and data output ports such as the write recognition device (Teres figure 4 and column 4) for collecting the output signal as a result of finger motion on the watch device of Teres and Olsen teaches data ports (Olsen figure 1) for collecting the output signal from the microprocessor as a result of finger motion on the watch device of Olsen. Olsen further discloses a computer

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interface so that the output signal of Teres can be carried over to the computer for the control of a cursor in a display device. Therefore, Teres's watch device may have incorporated the computer interface 38 of Olsen (Olsen figure 1 and Teres figure 4) to control a cursor of the display screen.

(5) One having the ordinary skill in the art would have been motivated to do this to control a cursor by a manual action on a surface formed by a finger.

Claim 2:

Claim 2 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of "a watch crystal." The Teres/Olsen reference has taught an outer element such as the cover for the watch (see Teres figures 1-5; column 1-5; Olsen figures 4-7, column 6, lines 35-67 and column 7, lines 1-25). Furthermore, any conventional watch would require a cover to protect it from scratches, and the cover could be made from various materials including crystal as an outer element taught by Olsen in figures 4-5.

Claim 3:

Claim 3 recites all the limitations of claim 1 or 2 and adds the limitation of "first means is supported by the outer element." The Teres/Olsen reference has taught that the first means is supported by the outer element, i.e., the cover or surface for the watch as shown in figures 4-7 (Teres figures 1-5; column 1-5; Olsen column 6, lines 1-67 and column 7, lines 1-25).

Claim 4:

Claim 4 recites all the limitations of claim 1 or 2 and adds the limitation of "a part of sensitive pads is arranged in the top portion of the case." The Teres/Olsen reference has taught in

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figures 4-7 a cover of watch that protects sensors from scratches (Teres figures 1-5; column 1-5; Olsen column 6, lines 1-67 and column 7, lines 1-25).

Claim 5:

Claim 5 recites all the limitations of claim 1 and adds the limitation of “sensitive pads arranged in the shape of a matrix.” The Teres/Olsen reference has taught a watch with multiple sensors arranged to generate signals to control the position of the cursor on the display screen (Teres figures 1-5; column 1-5; Olsen column 6, lines 1-67 and column 7, lines 1-25). The Examiner interprets that an array of multiple sensors can be arranged in the shape of matrix.

Claim 6 recites all the limitations of claim 5 and adds the limitation of “means for detecting the actuation frequency of successive sensors.” The Olsen reference teaches in figures 4-5 a watch 54 as a pointing device having a display and controls like a conventional watch and a person wears it like a conventional watch. Sensors are built into the watch to provide the computer mouse functions. However, Olsen is silent on means for detecting the actuation frequency of successive sensors.

The Teres reference teaches a watch with means for detecting the activated sensor representing the greatest variation of electrical quantity comprising conversion means of the total capacity of the set of the fixed capacitor and the parasite capacitor of each capacitive sensor A to S into an output signal having a frequency proportional to this total capacity (column 3, lines 24-37).

Claim 7 recites all the limitations of claim 6 and adds the limitation of “the ratio between the movement of cursor and the path.” Teres/Olsen teaches all the limitations of claim 6.

However, the references are silent on the additional limitation as recited in claim 7.

Ferrari teaches a portable device having a display screen by providing an electrical output signal for selectively controlling movement of a cursor across the display screen. Ferrari further teaches capacitive sensing cells arranged in a row/column array top to produce output signals for control of cursor movement in both a row direction and an orthogonal column direction. Ferrari also teaches the horizontal and vertical direction such as the two X and Y array outputs being proportional to the zero and first moment of the 2-D pattern (column 11, lines 32-41 of the Ferrari reference). Therefore, Ferrari has taught that ratio between the movement of cursor and the path taken by a user’s finger across an outer element is less at low speed or actuation frequency than at relatively high speed or actuation frequency.

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have incorporated the additional means of cursor movement of Ferrari in the watch device of Teres/Olsen to control a cursor on a display screen in accordance to the fingertip’s movement speed. One having the ordinary skill in the art would have been motivated to do this to provide a more sensitive or high precision control to the cursor movement across a display screen.

Claim 8:

Claim 8 recites all the limitations of claim 5 and adds the limitation of “the movement of cursor corresponds to the path taken by the user’s finger.” The Teres/Olsen reference teaches in

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figures 4-7 the surface area of the watch to generate signals to control the position of the cursor on the display screen (Teres figures 1-5; column 1-5; Olsen column 6, lines 1-13). Since the user's finger can move upon the watch's surface area, the path taken by the user's finger corresponds to the cursor's movement across a display screen.

Claims 9-10 recites all the limitations of claim 1 and adds the limitation of "concentric zones." Olsen discloses a mouse watch with cursor movements as claimed. See figures 4-5 and respective portions of the specification. Teres et al. teaches a wristwatch device having concentric zones as shown in figure 3.

Claim 11 recites all the limitations of claim 1 and adds the limitation of "second control means." The Teres/Olsen reference has taught a second control means such as a trackball being incorporated into the mouse watch device (Teres figures 1-5; column 1-5; Olsen column 8, lines 58-59).

Claim 12 recites all the limitations of claim 11 and adds the limitation of "the second control means arranged in the top portion of case." The Teres/Olsen reference has taught the second control means are arranged in the top portion of the watch (Teres figures 1-5; column 1-5; Olsen figures 4-7, column 8, lines 58-59).

Claim 13 recites all the limitations of claim 11 and adds the limitation of "the second control means formed by touch sensitive sensor." The Teres/Olsen reference has taught a second control means such as a trackball rotated to move the cursor on the display screen are formed by

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touch sensitive sensor (Teres figures 1-5; column 1-5; Olsen column 6, lines 1-67, column 7, lines 1-25, column 8, lines 58-59).

Claim 14 recites all the limitations of claim 11 and adds the limitation of "second control means arranged in a link of the wristband of the watch." The Teres/Olsen reference clearly teaches a second control means arranged in a link of the wristband of the watch (Teres figures 1-5; column 1-5; Olsen column 6, lines 1-67, column 7, lines 1-25, column 8, lines 58-59).

Claim 15 recites all the limitations of claim 11 and adds the limitation of "second control means formed by a push-button." The Teres/Olsen reference has taught a second control means such as keys 64 that are formed by a push-button (Teres figures 1-5; column 1-5; Olsen column 6, lines 1-67, column 7, lines 1-25, and column 8, lines 58-59).

Claim 16 recites all the limitations of claim 11 and adds the limitation of "second control means formed by a pressure sensor." The Teres/Olsen reference has taught a second control means such as a trackball formed by a pressure sensor (Teres figures 1-5; column 1-5; Olsen column 6, lines 1-67, column 7, lines 1-25, and column 8, lines 58-59).

Claim 17 recites all the limitations of claim 16 and adds the limitation of "pressure sensor formed by a piezoelectric crystal." However, Teres/Olsen further discloses the claim limitation of pressure sensor formed by a piezoelectric crystal.

Claim 18 recites all the limitations of claim 11 and adds the limitation of "second control means formed by micro-contactor or small travel contactor." However, the Teres reference

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teaches a second control means such as push buttons or any other new control devices that may be replaced by other sensors (Teres column 5, lines 4-16).


Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (703) 605-1213. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-6606 for regular communications and (703) 308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 395-3900.

jcw
December 18, 2003


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